

REMARKS

Reconsideration of the above-identified application in view of the present amendment is respectfully requested.

Claims 21-39 are currently pending in this application. Claims 1-20 have been canceled. Claims 21-39 have been added.

Claims 1-8 and 11-18 have been rejected under 35 USC §102(b) as being anticipated by JP 09-039801 to Hashimoto. Anticipation requires a single prior art reference that discloses each element of the claim. W.L. Gore & Associates v. Garlock, Inc., 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983), cert. denied 469 U.S. 851 (1984). Additionally, the single prior art reference must disclose each and every element of the claimed invention, arranged as in the claim. Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984). "There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention". Scripps Clinic & Research Foundation v. Genentech Inc., 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991). "The identical invention must be shown in as complete detail as is contained in the ... claim". Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

Claims 1-20 have been rejected under 35 USC §103(a) as being unpatentable over US 5,925,314 to Nishiguchi in view of Hashimoto. To establish obviousness of a claimed invention, the references when combined must teach or suggest all the

claim limitations. In addition, there must be some suggestion or motivation for a person having ordinary skill in the art at the time the invention was made to combine reference teachings (MPEP §706.02(j)).

For the Examiner's convenience, Applicant is filing a copy of a computer made English translation of the Japanese document to Hashimoto along with this amendment.

Claims 21-39 define over the prior art. Regarding claim 21, Hashimoto does not disclose a one-piece steering wheel skeleton made by one of casting and injection molding and not by securing separate parts together. The steering wheel in Hashimoto has a separately formed hub 12 welded to separately formed spokes 23 (translation, paragraph [0015]). The spokes are mechanically joined (translation paragraph [0011]) to a separately formed rim which is made by bending an extruded metal pipe (translation, paragraph [006]). The process of extrusion is not related to casting.

In addition, Hashimoto does not disclose forming recesses on the steering wheel rim during one of the casting and injection-molding processes. The office action indicated that coupling hole 19a is a recess in the steering wheel rim of Hashimoto. However, the recess 19a is not formed during one of casting and injection molding processes since the steering wheel skeleton of Hashimoto is not formed as a one piece structure in either casting or injection molding processes.

The patent to Nishiguchi et al. does not disclose that steering wheel B (Fig. 8) includes recesses. The office action indicated that recesses are provided on the rim and

that projections 7,8 are formed on the rim to cover the recesses. However, it is respectfully submitted that the steering wheel B does not have recesses. Projections 7,8 refer to a cross section of door impact beam D (Fig. 11 and col. 9 lines 10-19). Nishiguchi et al. does not disclose gluing or covering any of the formed vehicle components.

Thus, claim 21 should be allowable because Hashimoto does not disclose all of the limitations in claim 21 which is required to establish anticipation and because Nishiguchi et al. does not, in combination with Hashimoto, disclose all of the claim limitations, and there is no suggestion or motivation for a person having ordinary skill in the art to combine Hashimoto with Nishiguchi et al.

Claims 22-27 depend from claim 21 and define over the cited prior art for similar reasons as claim 21 and for the specific limitations recited therein. Regarding claim 22, none of the prior art disclose or suggest that the step of forming the recesses on the steering wheel rim includes the step of forming recesses on opposite sides of the steering wheel rim, with respect to a cross-section of the steering wheel rim. Neither the patent to Nishiguchi nor the patent to Hashimoto disclose forming recesses on opposite sides of the steering wheel rim during a casting process.

Regarding claim 23, none of the prior art disclose or suggest that the step of producing the one-piece steering wheel skeleton includes the step of forming projections on the steering wheel rim which extend approximately radially with respect to the cross-section of the steering wheel rim. As

previously discussed, the patent to Nishiguchi does not teach or suggest forming projections on the steering wheel B. Hashimoto does not teach forming projections during the casting or injection molding process for forming a one piece steering wheel.

Regarding claim 24, none of the prior art disclose or suggest a further step of bending the projections with a deburring press to cover the recesses, prior to the step of gluing the intermediate layer onto the steering wheel rim.

Regarding claim 25, none of the prior art disclose or suggest that the step of producing the one-piece steering wheel skeleton includes the step of producing the steering wheel rim with a cross-section which defines the final outer geometry of the finished vehicle steering wheel, prior to performing the steps of gluing the intermediate layer and covering with the leather. The patent to Nishiguchi does not teach steps of gluing an intermediate layer and covering with leather. Hashimoto does not teach forming the rim by casting.

Regarding claim 26, none of the prior art disclose or suggest the steps of selecting an intermediate layer made of soft foam having a constant thickness throughout and selecting leather having a constant thickness throughout, prior to performing the steps of gluing the intermediate layer and covering the intermediate layer with the leather. Nishiguchi et al. does not disclose covering the steering wheel rim with foam and leather layers. Hashimoto does not disclose a foam and leather layer with a constant thickness.

Regarding claim 27, none of the prior art disclose or suggest producing the steering wheel skeleton by one of an aluminum and magnesium pressure die-casting and including all the limitations of claim 21.

Thus, claims 22-27 should be allowable.

Regarding claim 28, Hashimoto does not disclose a one-piece steering wheel skeleton made by one of casting and injection molding and not by securing separate parts together for reasons discussed in the arguments for claim 21. In addition, Hashimoto does not disclose gluing the cover unit (foam and leather) to the rim. The translation discloses gluing the elastic layer onto the rim and later gluing the leather onto the elastic body layer 31. The patent to Nishiguchi does not disclose covering the steering wheel skeleton with foam and leather.

Thus, claim 28 should be allowable because Hashimoto does not disclose all of the limitations in claim 28 which is required to establish anticipation and because Nishiguchi et al. does not, in combination with Hashimoto, disclose all of the claim limitations, and there is no suggestion or motivation for a person having ordinary skill in the art to combine Hashimoto with Nishiguchi et al.

Claim 29 depends from claim 28 and defines over the prior art for the same reasons as claim 28 and for the specific limitations recited therein. Regarding claim 29, neither Nishiguchi nor Hashimoto disclose or suggest that the step of producing said steering wheel skeleton by casting comprises one of an aluminum and magnesium pressure die-casting and

including all the limitations of claim 18. Thus, claim 29 should be allowable.

Regarding claim 30, Hashimoto does not disclose a steering wheel skeleton having a hub, at least one spoke and a steering wheel rim and where the steering wheel skeleton is one piece and not separate parts secured together. In addition, Hashimoto does not disclose that the steering wheel rim has at least an underside perimeter with respect to a cross-section of the rim and numerous recesses extending into the underside perimeter and terminating at a location within the steering wheel rim. Hashimoto does not disclose recesses which extend into the underside perimeter of the steering wheel rim and which terminate at a location within the recess. The hole 19a in Hashimoto does not extend into the underside perimeter of the steering wheel rim and does not terminate at a location within the steering wheel rim. Nishiguchi does not disclose recesses in the steering wheel rim. Neither the patent to Nishiguchi nor Hashimoto disclose or suggest a pre-manufactured cover attached to the steering wheel rim to cover the recesses where the cover consists of an intermediate layer made of soft foam which engages the steering wheel rim and an outer layer made of leather.

Thus, claim 30 should be allowable because Hashimoto does not disclose all of the limitations in claim 30 which is required to establish anticipation and because Nishiguchi et al. does not, in combination with Hashimoto, disclose all of the claim limitations, and there is no suggestion or

motivation for a person having ordinary skill in the art to combine Hashimoto with Nishiguchi et al.

Claims 31-34 depend from claim 30 and define over the prior art for the same reasons as claim 30 and for the specific limitations recited therein. Regarding claim 31, none of the prior art disclose or suggest that an intermediate layer of the cover is glued directly to the steering wheel rim and including all the limitations of claim 30.

Regarding claim 32, none of the prior art disclose or suggest that at least one of the intermediate layer and the outer leather layer has a constant thickness and including all the limitations of claim 30.

Regarding claim 33, none of the prior art disclose or suggest that the steering wheel rim underside perimeter includes a plurality of projections for covering the recesses.

Regarding claim 34, none of the prior art disclose or suggest that the steering wheel rim includes webs located in the recesses to divide the recesses. Neither Nishiguchi nor Hashimoto disclose or suggest webs in recesses to divide the recesses. Thus, claims 31-34 should be allowable.

Regarding claim 35, neither Hashimoto nor Nishiguchi disclose or suggest producing a one-piece steering wheel skeleton having a hub, at least one spoke and a steering wheel rim by one of casting and injection-molding and not by securing separate parts together, and, forming recesses on the steering wheel rim during one of the casting and injection-molding processes. As discussed previously, Nishiguchi does not disclose recesses in the steering wheel rim and Hashimoto

does not disclose forming recesses during casting or injection molding of a one piece steering wheel skeleton.

Thus, claim 35 should be allowable because Hashimoto does not disclose all of the limitations in claim 35 which is required to establish anticipation and because Nishiguchi et al. does not, in combination with Hashimoto, disclose all of the claim limitations, and there is no suggestion or motivation for a person having ordinary skill in the art to combine Hashimoto with Nishiguchi et al.

Claims 36-38 depend from claim 35 and define over the prior art for the same reasons as claim 30 and for the specific limitations recited therein. Regarding claim 36, neither Hashimoto nor Nishiguchi disclose or suggest that the step of forming recesses on the steering wheel rim during one of the casting and injection-molding processes includes the steps of forming recesses on both the underside and a side opposite the underside of the steering wheel rim, with respect to a cross-section of the steering wheel rim.

Regarding claim 37, neither Nishiguchi nor Hashimoto disclose or suggest the step of forming the steering wheel rim includes the step of forming projections on the steering wheel rim which extend approximately radially with respect to the cross-section of the steering wheel rim. Hashimoto does not disclose casting or injection molding the projection 19. Nishiguchi does not disclose forming projections while casting the steering wheel skeleton.

Regarding claim 38, neither Hashimoto nor Nishiguchi disclose or suggest the step of bending the projections with a

deburring press to cover the recesses, prior to the step of gluing the cover onto the steering wheel rim. Thus, claims 36-38 should be allowable.

Regarding claim 39, neither Nishiguchi nor Hashimoto disclose or suggest a one piece steering wheel skeleton with a rim which has an underside perimeter and at least one recess extending into the underside perimeter and terminating within the steering wheel rim. As previously discussed, Nishiguchi does not disclose recesses in its one piece steering wheel skeleton and Hashimoto does not disclose a one piece skeleton nor recesses in the underside perimeter of the rim which extend into the underside perimeter and terminate within the steering wheel rim.

In addition, neither Nishiguchi nor Hashimoto disclose or suggest an insert having a structure separate from the steering wheel rim located in the recess to cover the recess and the insert and the steering wheel rim together forming a continuously extending outer perimeter of the steering wheel rim with respect to a cross-section of the steering wheel rim at that location. Since neither Nishiguchi nor Hashimoto disclose recesses in the underside perimeter of the skeleton rim which extending into the underside perimeter and terminate within the steering wheel rim, it follows that neither Nishiguchi nor Hashimoto disclose an insert for covering the recess which together forms a continuously extending outer perimeter of the steering wheel rim with respect to a cross-section of the steering wheel rim at that location.

Furthermore, neither Nishiguchi nor Hashimoto disclose or suggest a pre-manufactured cover attached to the steering wheel rim and the insert to cover the outer perimeter.

Finally, neither Nishiguchi nor Hashimoto disclose or suggest a cover consisting of an intermediate layer made of soft foam which engages the steering wheel rim and the insert and an outer layer made of leather.

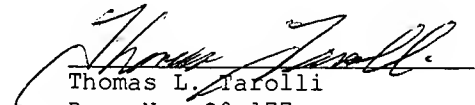
Thus, claim 39 should be allowable because Hashimoto does not disclose all of the limitations in claim 39 which is required to establish anticipation and because Nishiguchi et al. does not, in combination with Hashimoto, disclose all of the claim limitations, and there is no suggestion or motivation for a person having ordinary skill in the art to combine Hashimoto with Nishiguchi et al.

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In view of the foregoing, it is respectfully submitted that the above-identified application is in condition for allowance, and allowance of the above-identified application is respectfully requested.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,


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